② 中文

∖⊒ Sample

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XenP202TT | High Precision Multi-Human Tracking mmWave Sensor

Multi-Human Tracking

## 🖺 Overview - 🔀 Design - 🗏 Document

#### Overview

#### High Precision Multi-Human Tracking mmWave Sensor

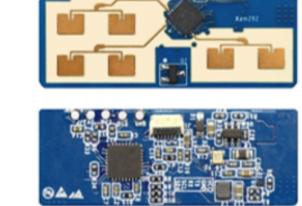
Based on the S5 series SoC and incorporated with a trajectory tracking algorithm, the XenP202TT series sensors can detect multiple human targets in real-time, distinguish the moving trajectories, and predict the moving tendencies. The XenP202TT series sensors are applicable to various scenarios such as the DTS in smart security applications, human avoidance/following in smart air-conditioning, start/pause the music and/or lights according to human position in smart speakers, and smart motion-sensor lights.

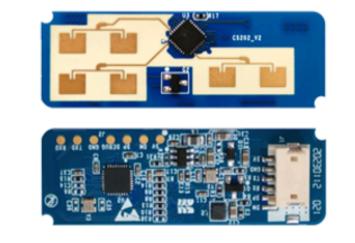
#### **Features**

- Multi-target Detection: Detect multiple human targets in real-time
- Stable Tracking: High-precision motion/micro-motion sensing and tracking
- Precise Positioning: Range resolution of 15 cm/Angle resolution of 12°
- Minimalist Design: Adaptable to various product outlook design

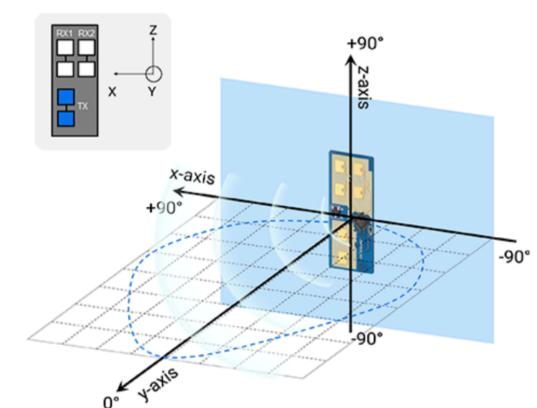
### **Specifications**

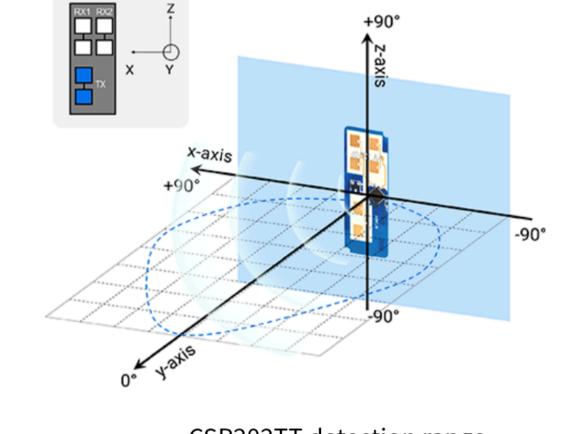
Specifications	XenP202TT (ARM Cortex M4)	CSP202TT (RISC 32-bit)			
Operating Frequency	24 ~ 24.25 GHz, FCC/CE compliant				
Detection Range	0 ~ 8 m (detection area adjustable)				
Field of View	± 60°(azimuth); ± 30°(pitch)				
No. of Targets	3 persons				
Angle Resolution	12°				
Range Resolution	15 cm				
Operating Voltage	5 V				
Sensor SoC	S5 series (1T2R)				
Detection Angle	UART, TTL				
IAP	Support				
Hardware Size	15 mm x 40 mm	15 mm x 44 mm			
Operating Current (Report Freq. 10 Hz, MCU included)	125 mA	111 mA			
Interface	FPC connector	Wire-to-board connector			





## **Illustration of Detection Range**

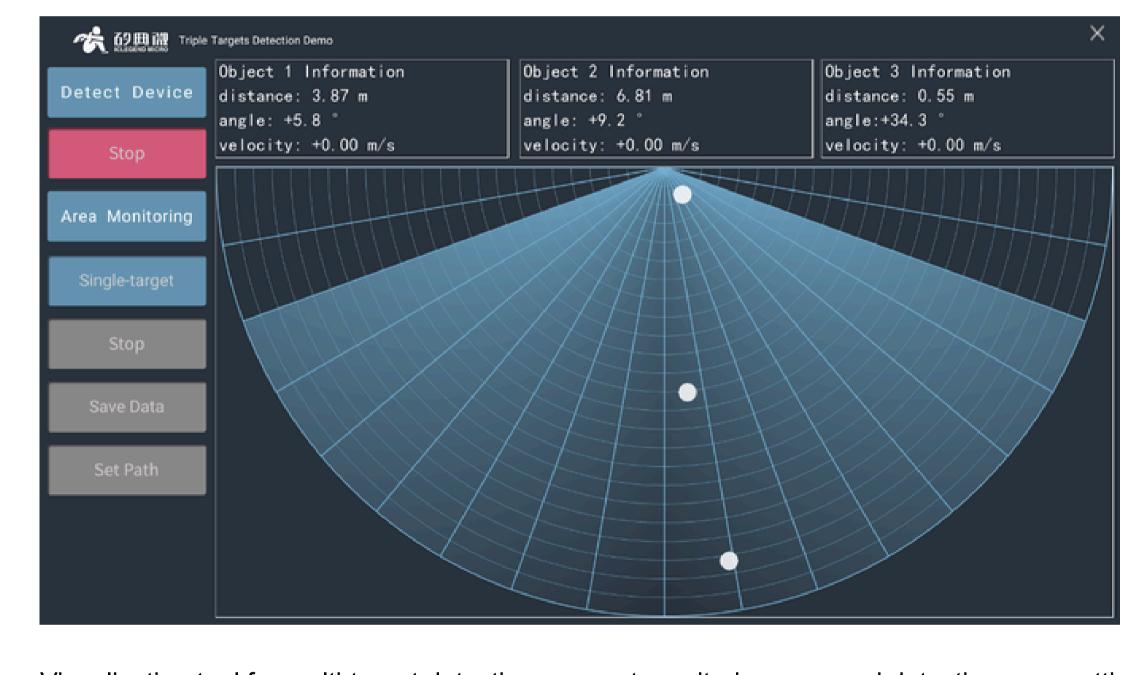




XenP202TT detection range

CSP202TT detection range

### **Visualization Tool**



Visualization tool for multi-target detection, support monitoring area and detection area setting

## **Applicable to Various Scenarios**



## **Design**

All GUI					
title	category	version	size	last update	action
GUI_XenP202TT Target Tracking new	GUI	V1.4.3.0	4.7 MB	20230724	

Document

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title	category	version	size	last update	action
XenP202TT DM new	Introduction	20231205	797.2 KB	20231207	□ Document
User Manual_XenP202TT Series Designs User Manual new	User Manual	Rev.1.3	2.3 MB	20231207	□ Document
PCB_XenP202	PCB	V1.0	327.6 KB	20221120	ू Sample
Schematics_XenP202	Schematics	V1.0	161.1 KB	20240415	ू Sample

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